



سالمندی سالم و فعال

هدف کلی درس

کسب دانش و آگاهی در مورد شرایط ، تمهیدات و پیش نیاز های مطرح در خصوص تحقق دوره سالمندی
واجد ویژگی های سالم ، فعال و موفقیت آمیز به عنوان هدف کلان و راهبردی مورد تاکید سازمان جهانی
بهداشت و دیگر مراجع معتبر سیاستگذار ملی و بین المللی در خصوص مسائل بهداشتی - اجتماعی
سالمندان و نقش پرستاران متخصص در حوزه مسائل سالمندی در تحقق این هدف.

- ▶ Healthy ageing
- ▶ Active ageing
- ▶ Successful ageing



“We are all amateurs; we don’t live long enough to become anything else.”

Charlie Chaplin



اصطلاحات سالمندی

Gerontology

بررسی علمی دگرگونیهای جسمی و روانشناختی همراه با
سالخوردگی

Clinical Gerontology (Geriatrics)

مراقبت از سالخوردگان


Geriatrics (History)

- The term geriatrics was proposed in 1909 by Dr. Ignatz Leo Nascher, former Chief of Clinic in the Mount Sinai Hospital Outpatient Department (New York City) and a "Father" of geriatrics in the United States.

سالمندی

► یک فرآیند بیولوژیک مشترک برای تمامی موجودات زنده که از زمان تولد شروع می شود و نمیتوان آن را متوقف یا معکوس نمود ولی با مراقبت صحیح می توان آن را به تاخیر انداخت. این فرآیند از فردی به فرد دیگر متفاوت است.

WHO

- ▶ **The "Young Old" 60-74**
 - ▶ **The "Old" (Old-Old) 75-90**
 - ▶ **The "Oldest-Old" 90+**
- 

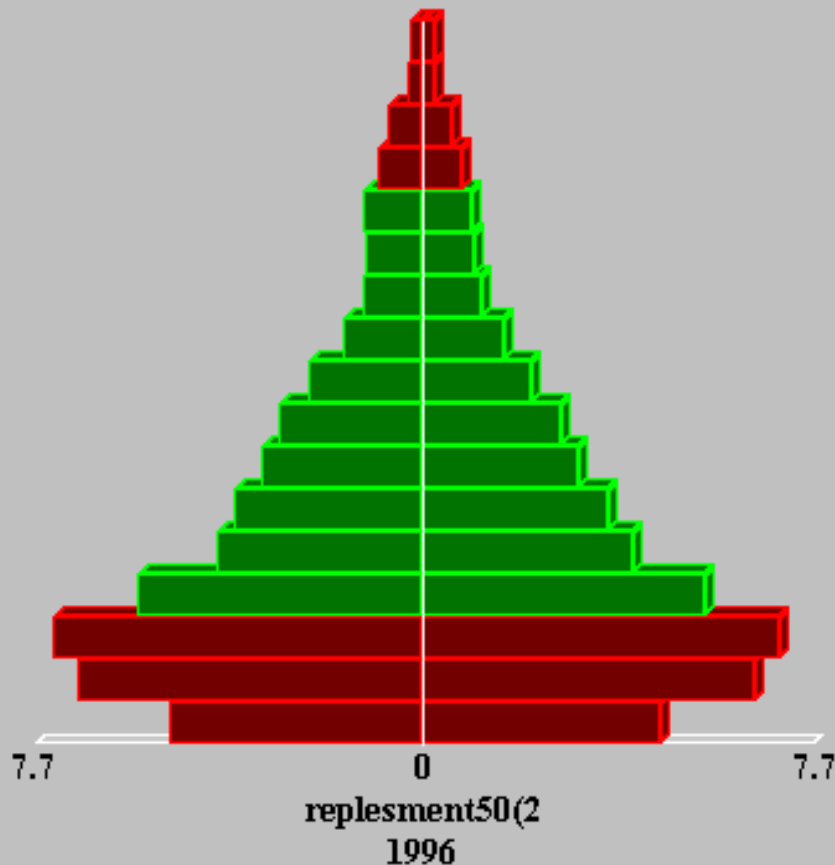
ابن سینا در کتاب قانون در طب
جرجانی در ذخیره خوارزمشاهی
مولوی در کتاب مثنوی
سن ۶۰ سالگی را مرز ورود به سالموردگی
قلمداد نموده اند

روند تغییر جمعیت در جهان

All Age Groups

Male

Female

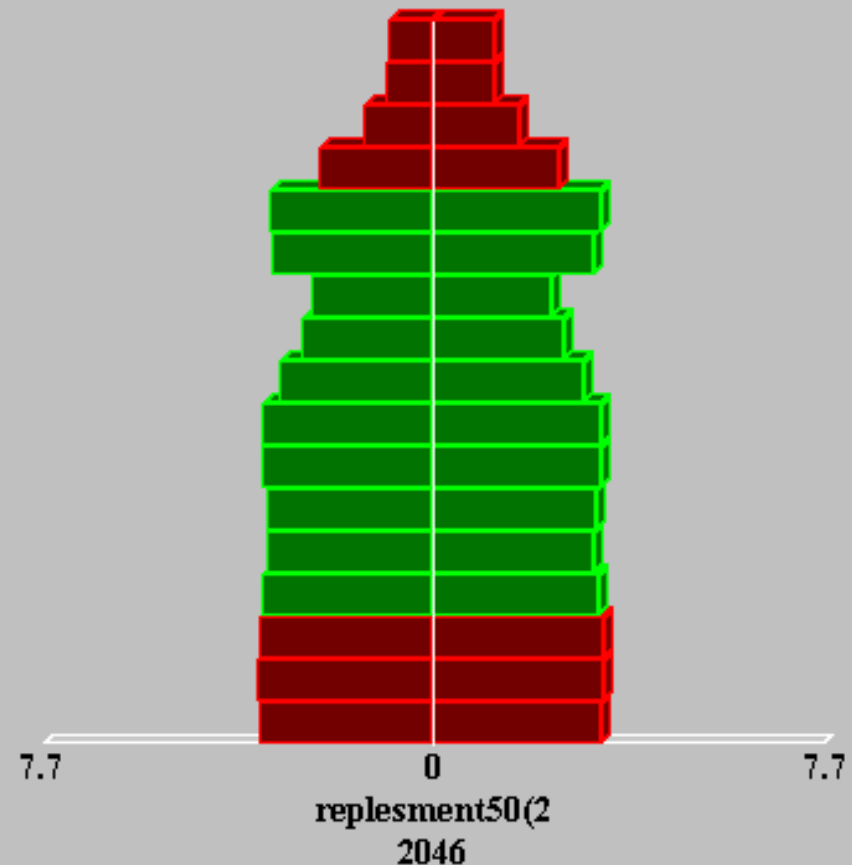


Male

Female

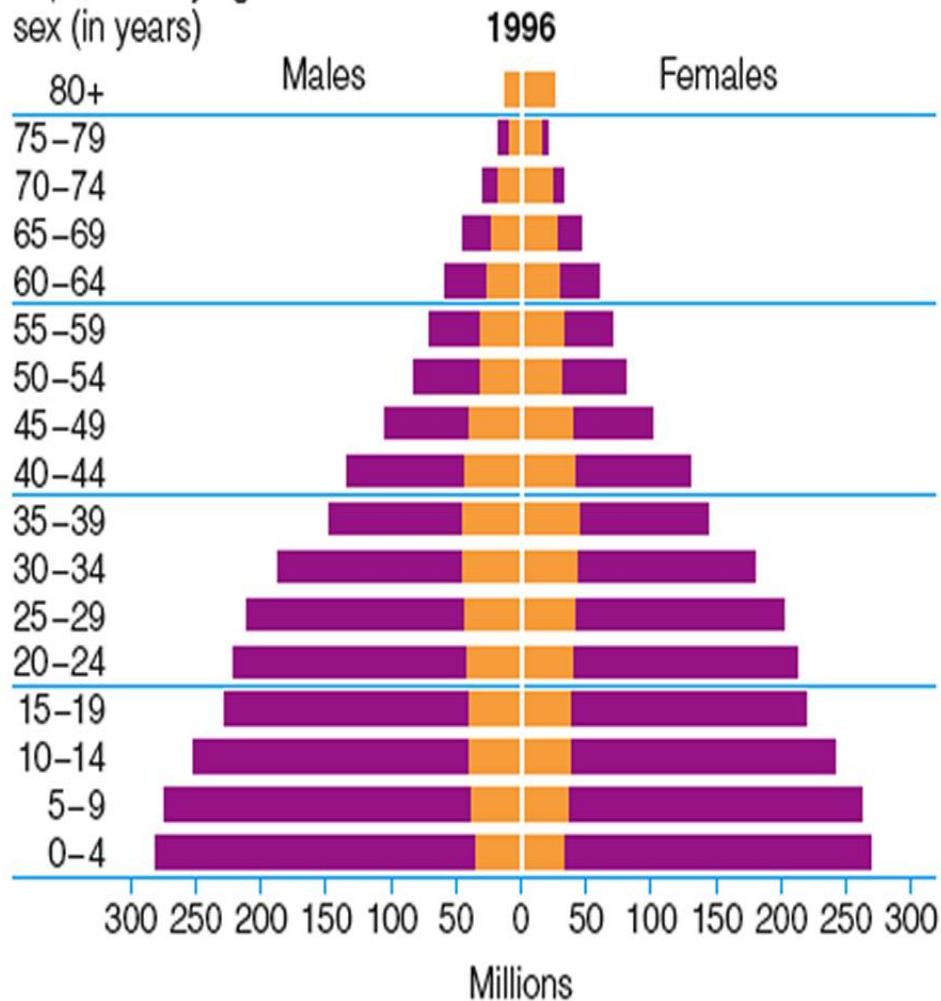
80+
75-79
70-74
65-69
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
5-9
0-4

Percent

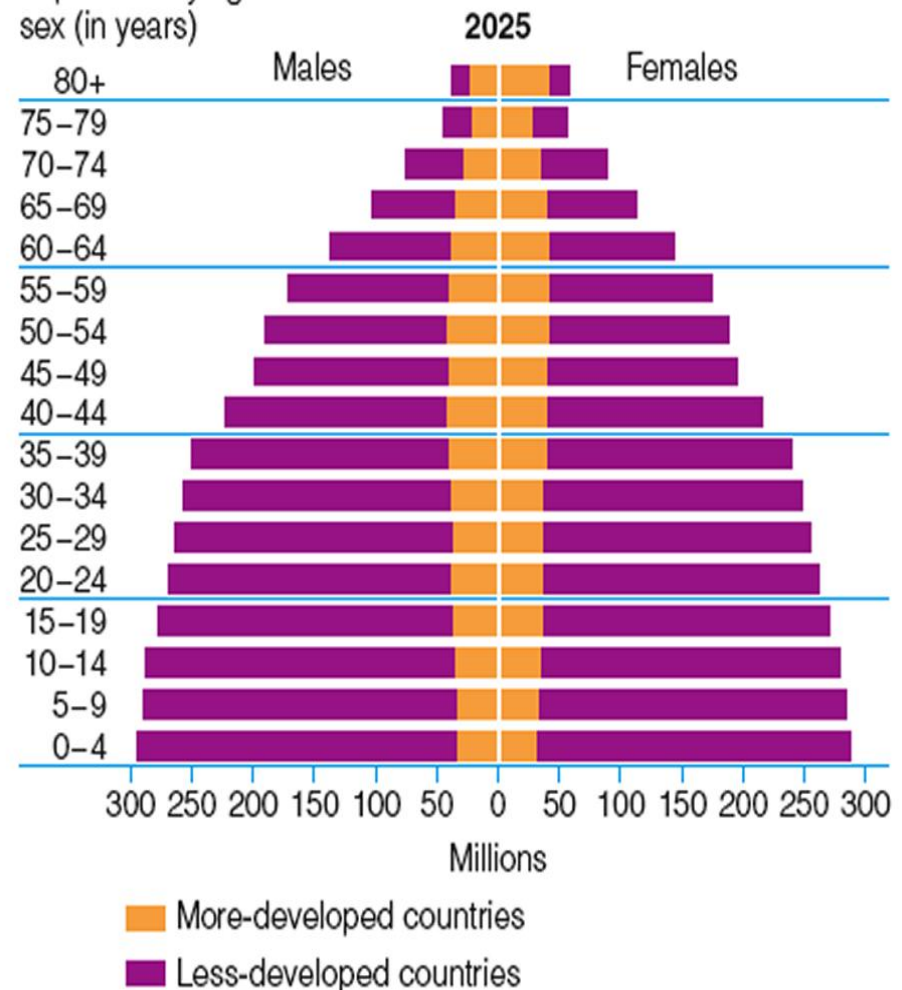


The Changing Global Age Structure

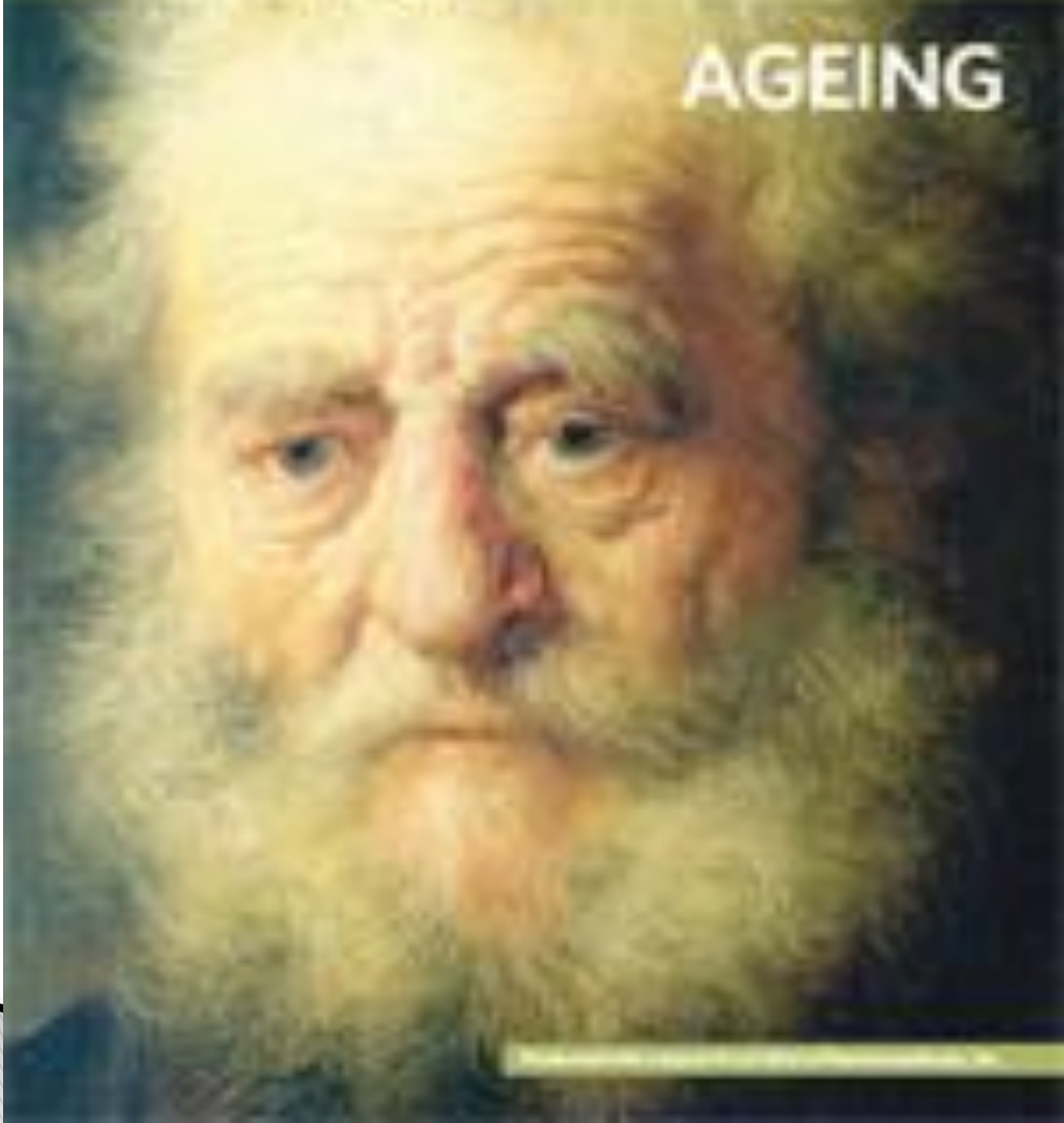
Population by age and sex (in years)



Population by age and sex (in years)



AGEING



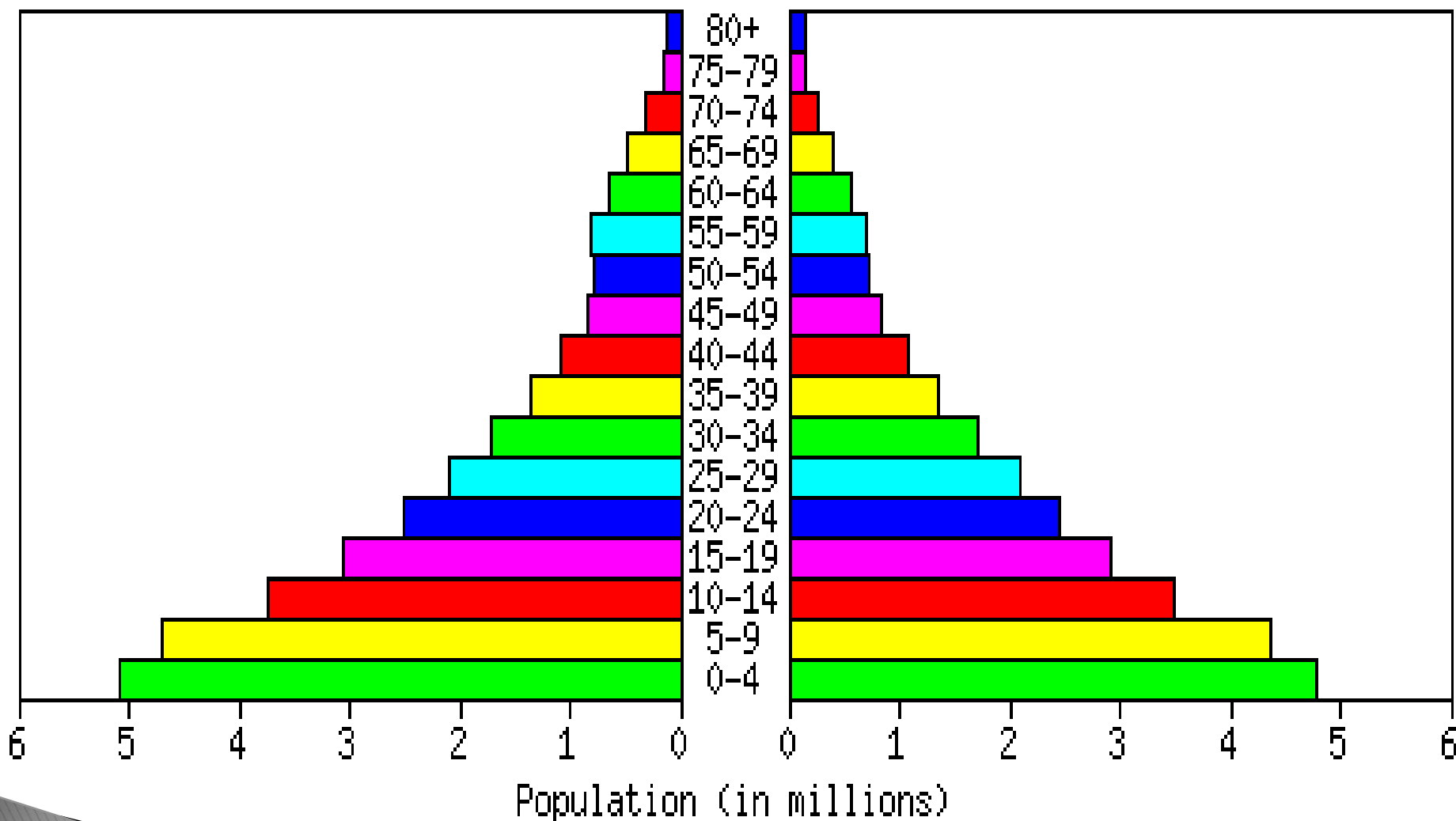
روند تغییر جمعیت در ایران

سال سرشماری	۱۳۶۵	۱۳۷۵	۱۳۸۵
جمعیت زیر ۱۵ سال	۴۵.۴۵٪	۳۹.۵٪	۲۵٪
جمعیت بالای ۶۰ سال	۵.۴۳٪	۶.۶۲٪	۷.۲۹٪

Iran: 1990

MALE

FEMALE

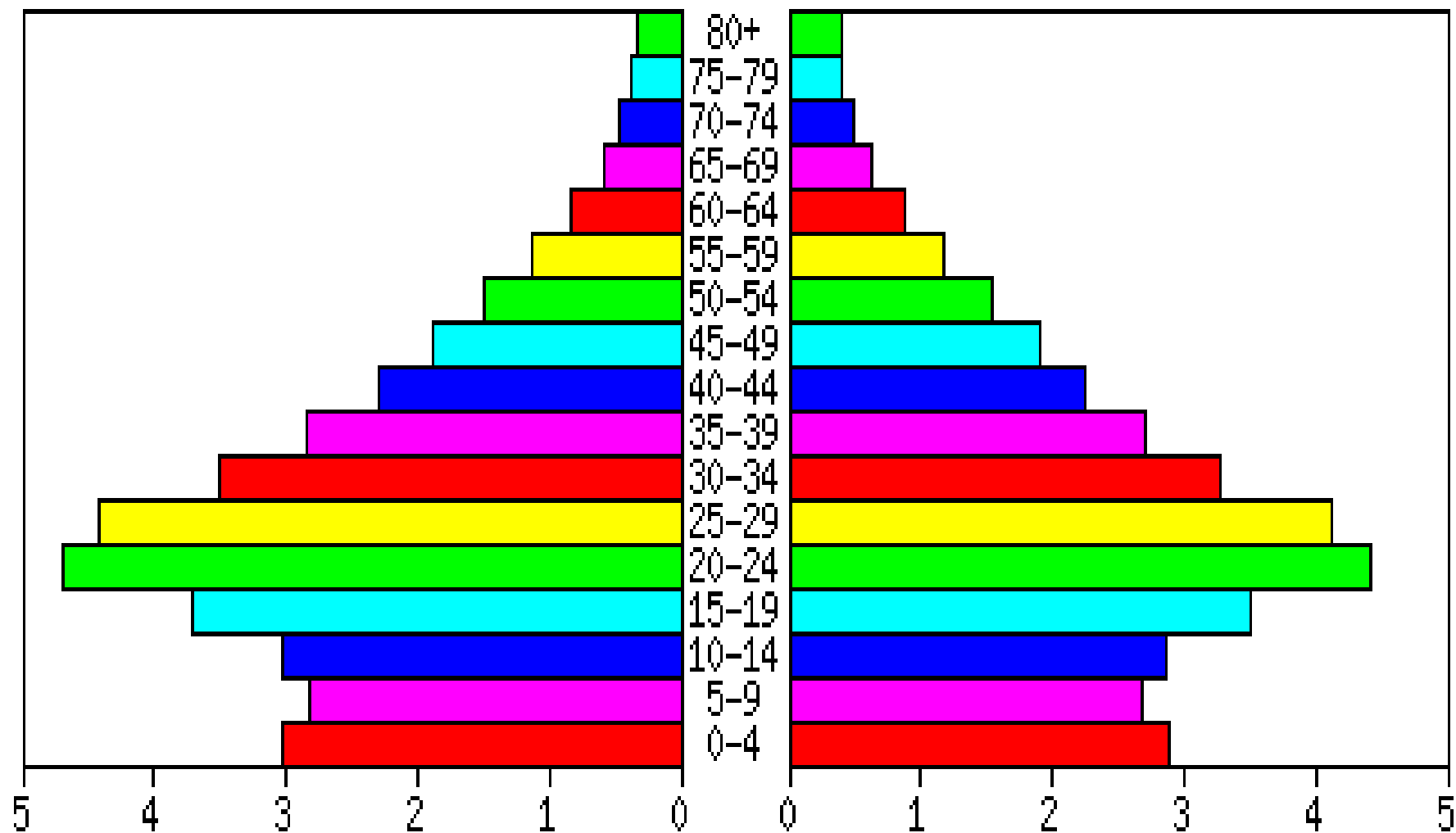


Source: U.S. Census Bureau, International Data Base.

Iran: 2010

MALE

FEMALE



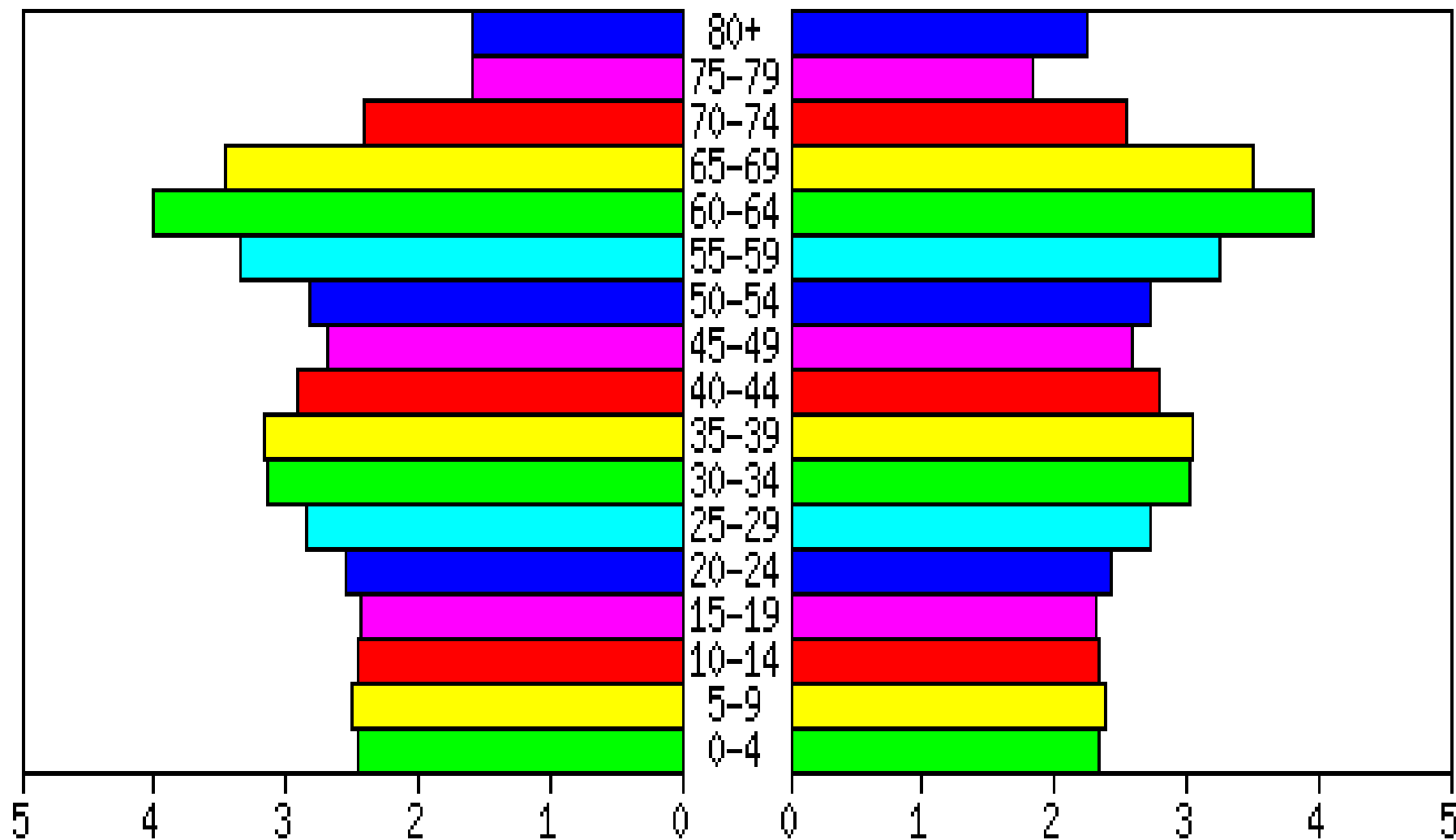
Population (in millions)

Source: U.S. Census Bureau, International Data Base.

Iran: 2050

MALE

FEMALE



Population (in millions)

Source: U.S. Census Bureau, International Data Base.

افزایش طول عمر انسان ها و اضافه شدن بر جمعیت سالمندان یکی از دست آوردهای قرن ۲۱ بوده است. این افزایش جمعیت سالمند یک مسئله جهانی است و برگشت پذیر نیست

در سال ۱۳۵۵، درصد سالمندان ایران ۲۵/۵٪ جمعیت بوده در حالی که این درصد در سال ۱۳۸۰، ۶۳/۶٪ برآورد شده است

پیش بینی می شود تا سال ۱۴۲۹ نسبت جمعیت سالمند کشور ۶۲/۲۴٪ باشد. باید توجه داشت که مسئله گذار جمعیت در کشور هایی مثل کشور ما تنها در عرض ۲۵ سال اتفاق می افتد.

پیشرفت روز افزون شهر نشینی و کنترل بیماریهای واگیر دار در کنار
تغییر ساختار جمعیتی جوامع به سمت پیر شدن، باعث تغییر چهره
بیماری های رایج شده است

به عنوان مثال نشان داده شده که همه گیری بیماری های قلبی
عروقی، کشور های با درآمد متوسط و پایین را هدف قرار داده و
مسبب حدود ۸۰٪ بار بیماری ها در این کشور ها است

این در حالی است که قبلا در همین کشور ها، بیماری های واگیر عامل
بیشترین مرگ و میر بوده اند.

با افزایش جمعیت سالمند، در حیطه بهداشت هدف این است که سالمندان با کمترین معلولیت و ناتوانی و حفظ استقلال به زندگی خود ادامه دهند

با مسن شدن افراد، میزان بیماری های غیرواگیر افزایش می یابد و این بیماری ها اغلب مزمن بوده و موجب معلولیت و ناتوانی می گردند و از سوی دیگر هزینه بالایی برای سالمند، خانواده و جامعه دارند؛

در حالی که بسیاری از این بیماری ها قابل پیشگیری و یا کنترل هستند لذا با سالخورده شدن جمعیت، آرایه خدمات بهداشتی درمانی خاص این گروه ضروری است


Stages of Life

- ▶ Chronological age typically used to note life's transitions

TABLE 1.1
Stages of the Life Span

Stage	Duration
Prenatal life	
Ovum	Fertilization through week 1
Embryo	Weeks 2–8
Fetus	Months 3–10
Birth	
Postnatal life	
Neonatal period	Newborn; birth through week 2
Infancy	Three weeks until end of first year
Childhood	
Early	Years 2–6
Middle	Years 7–10
Later	Prepubertal; females 9–15; males 12–16
Adolescence	The 6 years following puberty
Adulthood	Between 20 and 65 years
Senescence	From 65 years on
Death	

Human Longevity

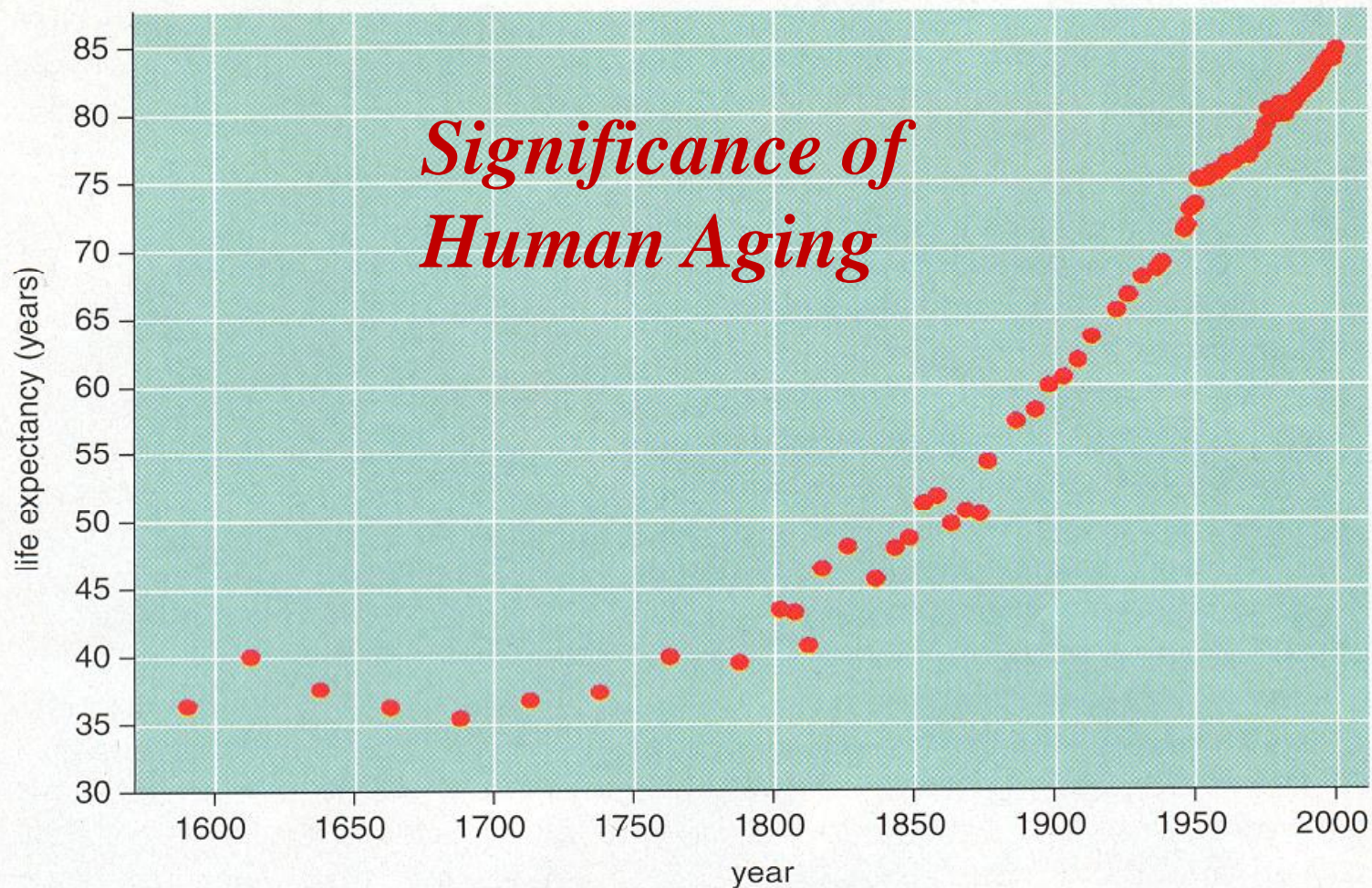
- ▶ Significant increase in longevity over past centuries
 - ▶ Due to decline in deaths resulting from *infectious* disease along with improved *public health*
 - ▶ Heart disease, cancer and stroke now most common cause of death
 - ▶ Death rates have actually declined in the elderly
 - ▶ -Is there a limit to human life span and should we prolong life at the expense of overall health?
 - ▶ We should be talking in the context of “**health span**” not life span
- 

Life Expectancy

- Birth in 1900 was **47.3** yrs
 - Birth in 1996 was **76.1**
 - Birth in 2000 rose to **76.9**
-
- This increase is largely due to decreases in mortality among individuals who are *middle aged and above*
- Life expectancy varies based on *gender* and *race*

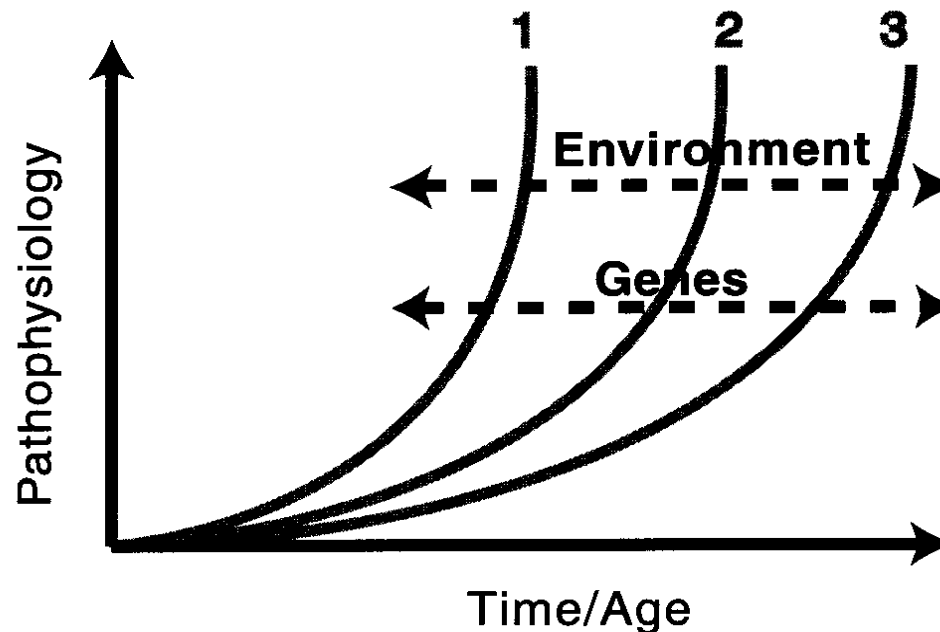


- ▶ **People live longer now than ever before**
- ▶ **By 2030, 20% of the US population will be 65 and older**
- ▶ **Significant challenge to medicine - ethical, financial, etc.**



Significance of Human Aging

- ▶ What is “normal” in the aging process - **primary aging**
 - ▶ More susceptibility to disease - **secondary aging**
 - ▶ More heterogeneity in the elderly population
 - ▶ Onset indeterminable and progression varied
- Genetic and environmental factors



Significance of Human Aging

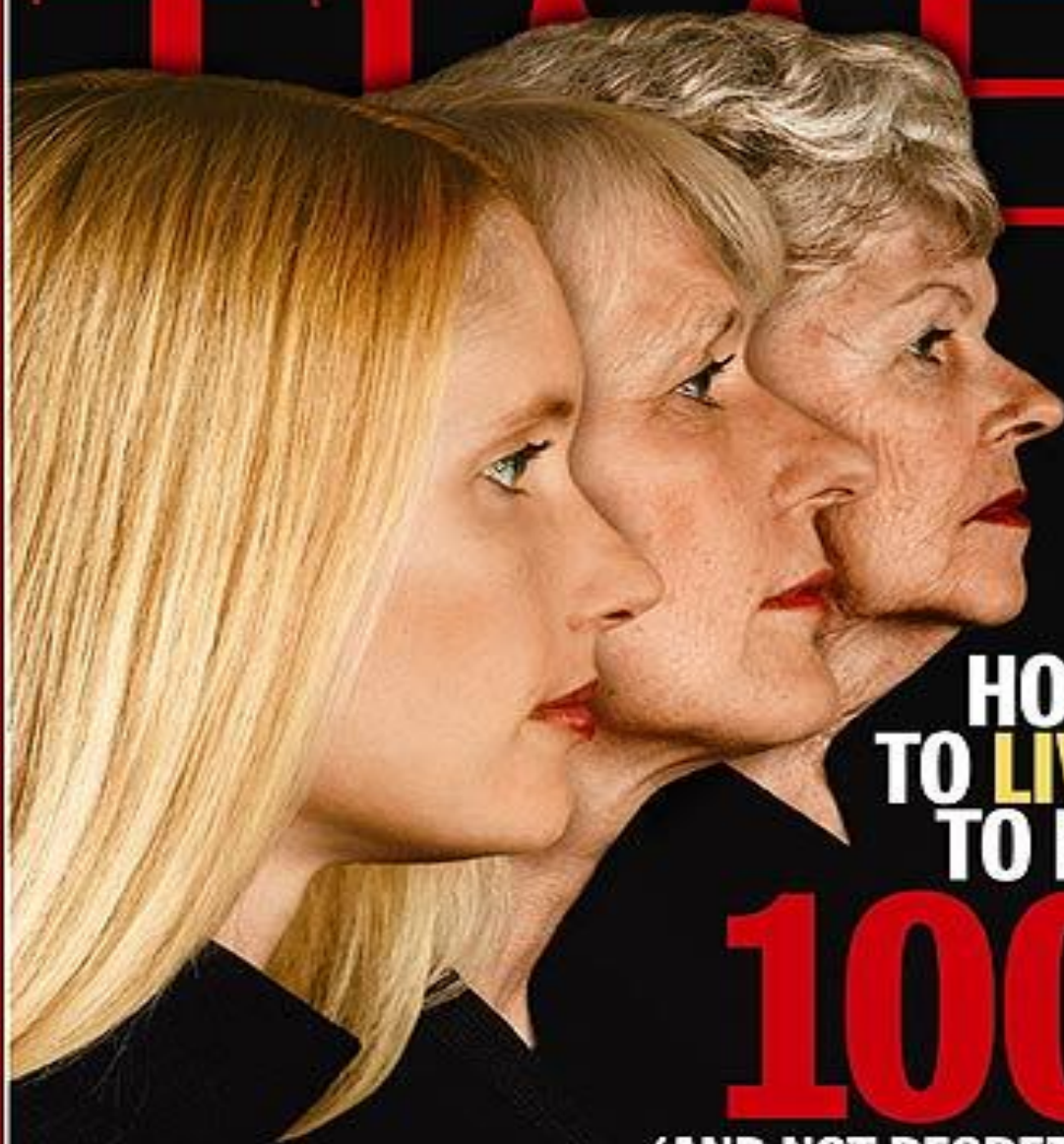
- ▶ **Gender** is a significant factor
- ▶ **Lifestyle** is a primary factor
- ▶ Various **theories** of aging attempt to explain the process - bottom line, there is disruption of homeostasis

AUGUST 30, 2004

www.time.com AOL Keyword: TIME

FALL PREVIEW: A SNEAK PEEK AT MOVIES, TV, MUSIC & BOOKS

TIME



HOW
TO LIVE
TO BE

100

(AND NOT REGRET IT)

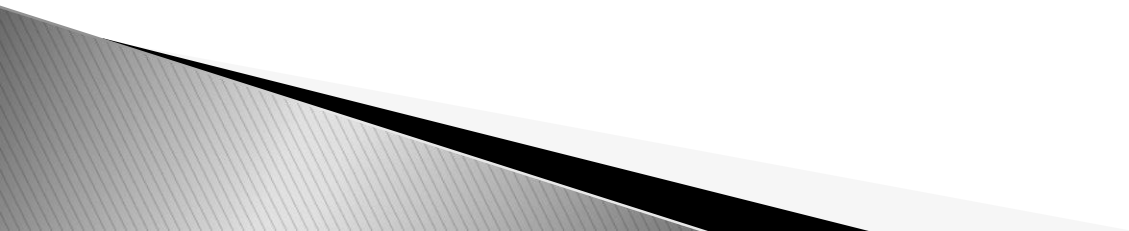
Ageing population –

greater responsibility placed on older people everywhere to maximise their chances for independence

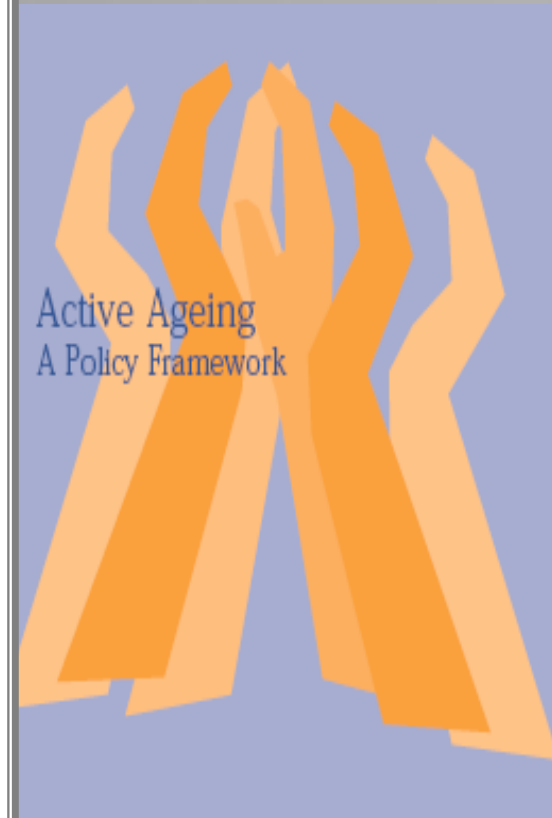
- **Healthy Ageing**
- **Successful Ageing**
- **Ageing Well**
- **Active Ageing**
- **Productive Ageing**

**The lifestyle choices
we make**

Active Aging

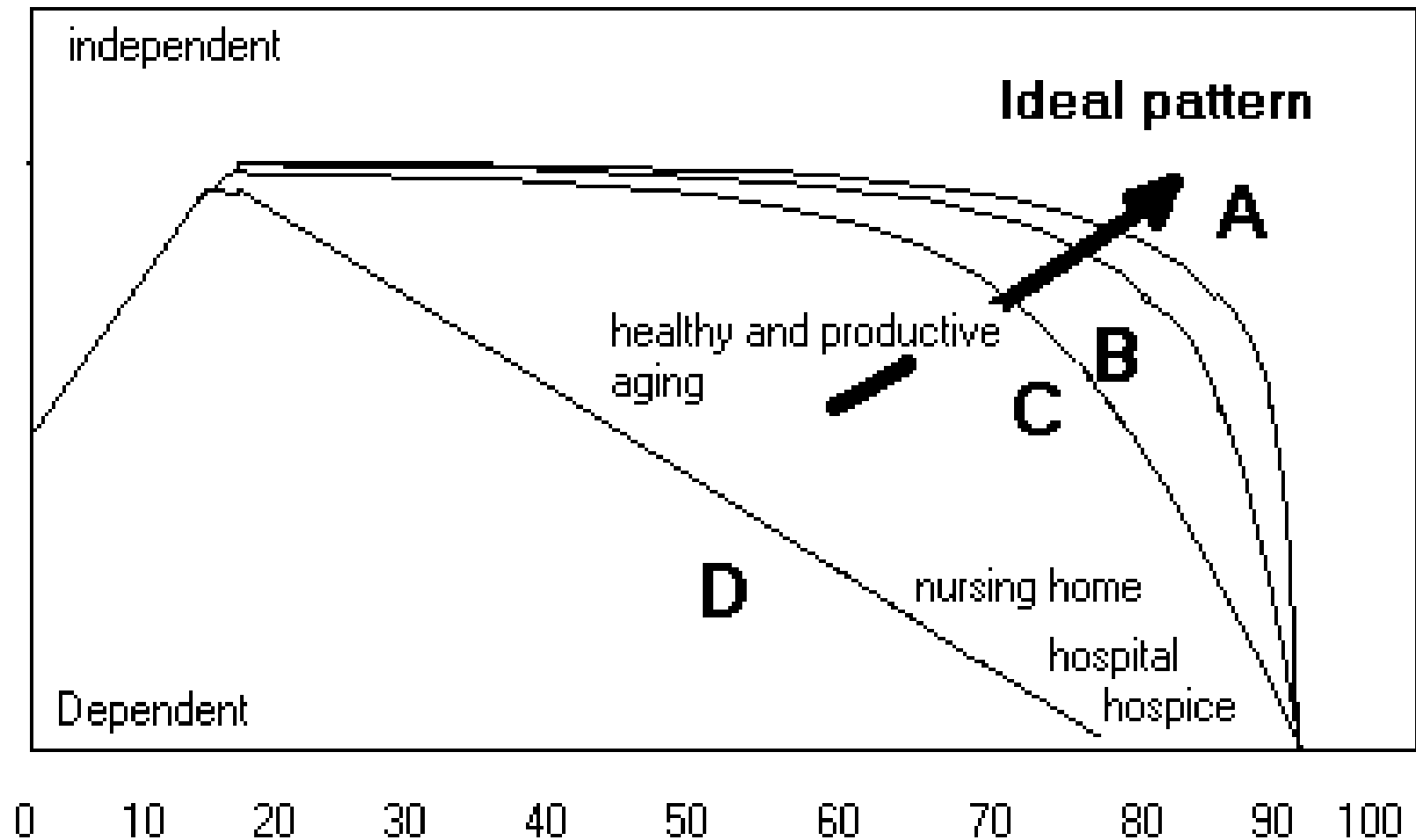


Active Ageing is the process of optimizing opportunities for health, participation, and security in order to enhance **quality of life** as people age.



**World Health Organization
2002 Policy Framework**

Active Aging means we must stay healthy until death



Who is responsible for Active Ageing?

- ▶ **Individuals** are responsible to stay healthy, engaged, and involved
- ▶ **BUT**

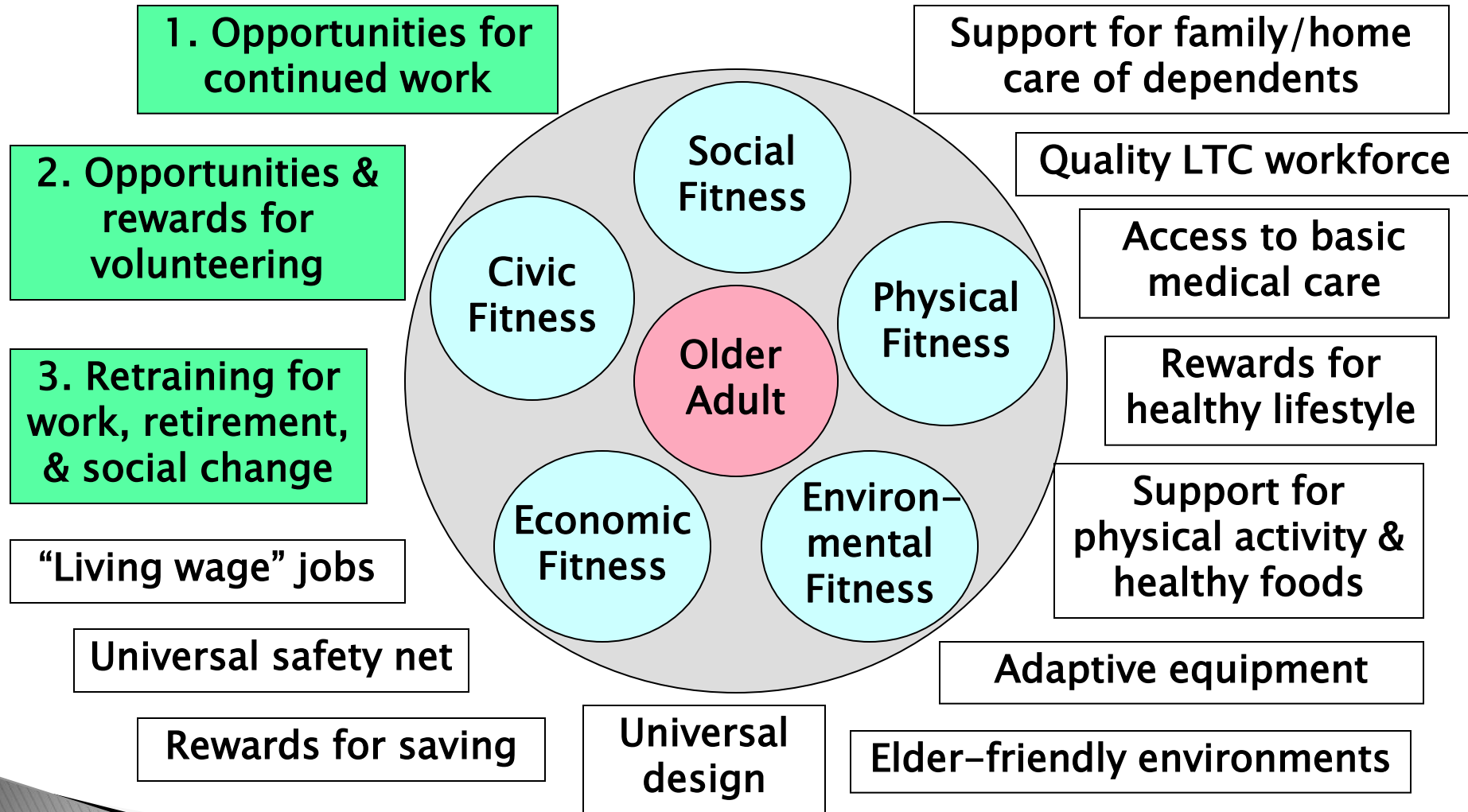
Social policies must...

“encourage and balance personal responsibility (self-care), age-friendly environments, and intergenerational solidarity” (WHO)

Active Ageing Consortium Asia Pacific (ACAP)



ACAP's Schema for Active Ageing as Individual, Family & Social Policy Partnership



Social Policy Environment

Overall Index

Active Ageing Index

Domains

Employment

Participation in Society

Independent, Healthy
and Secure living

Capacity and
Enabling Environment
for active ageing

Indicators

Employment rate 55-59

Voluntary activities

Physical exercise

Remaining life
expectancy at age 55

Employment rate 60-64

Care to children,
grandchildren

Access to health and
dental care

Share of healthy life
expectancy at age 55

Employment rate 65-69

Care to older adults

Independent living

Mental well-being

Employment rate 70-74

Political participation

Financial security
(three indicators) *

Use of ICT

Physical safety

Social connectedness

Lifelong learning

Educational
attainment

Actual experiences of active ageing

Capability to actively
age

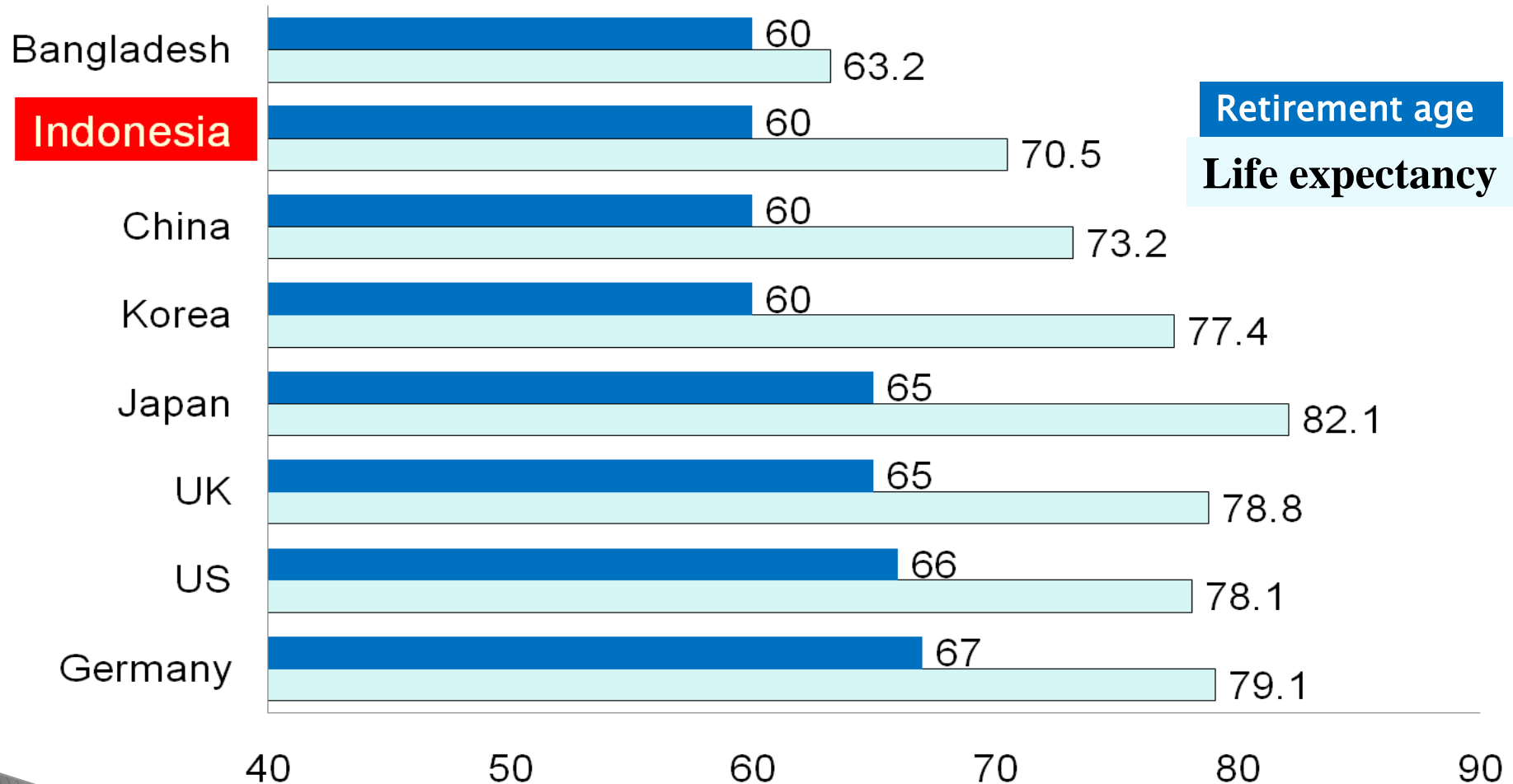
Ways to Support Continued Work

1. **Raise retirement age**
2. **Add incentives for part-time work**
3. **Create part-time jobs for older people**
4. **Create small businesses for older workers**



Ways to Support Continued Work

Raise Retirement Age



Most countries are raising retirement age

Ways to Support Continued Work

Create small businesses for elders

“Irodori” of Kamikatsu, Japan

- Produce leaves and flowers to “decorate” plates of food
- Employs many senior citizens, who pick leaves and flowers, put them on trays, and sell them.

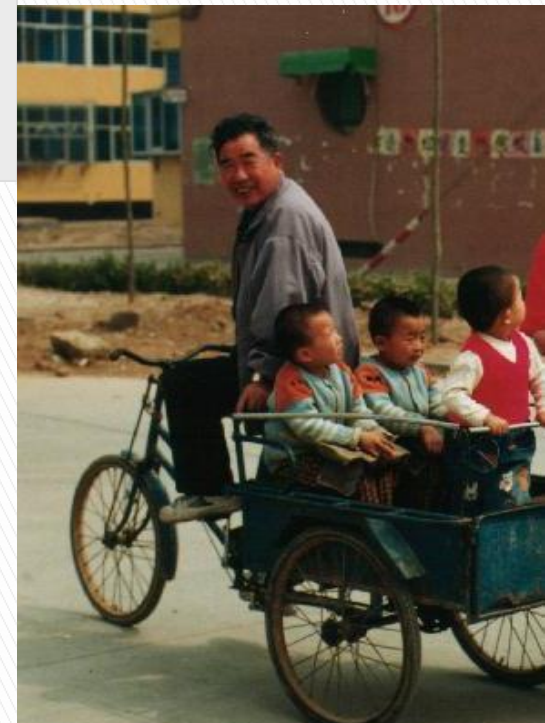


Employees:
Average age = 70
Oldest employee=94



Child Care Business in Wuhan, China

- **Elders care for own grandchildren**
- **But, some elders now get paid for helping unrelated families with their children**
 - **Adult parents can work**
 - **Elder gets child from school, watches him/her until parent comes home**



University of the 3rd Age and other college options for seniors

- ▶ **University of 3rd Age programs in France, Australia, other countries**
- ▶ **U3A Online – Australia**
- ▶ **Osher Institutes of Lifelong Learning – US**



- **Life-long learning**
- **New friends and social networks**

Ways to Support Volunteering

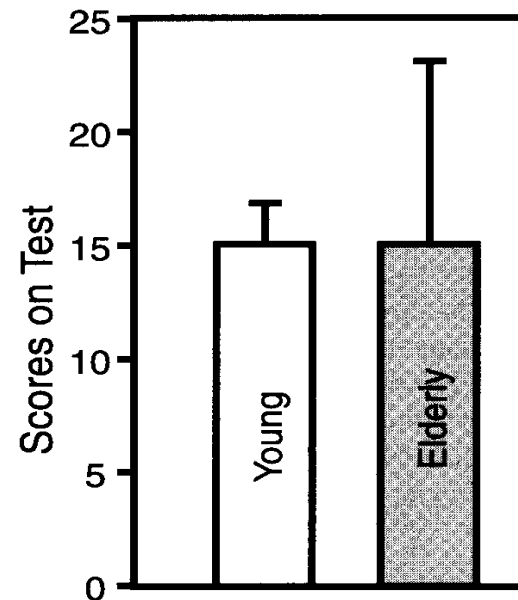
1. **Government**
2. **Religious organizations**
3. **Civic and social organizations**
4. **Business partners**



► Successful Aging

Successful Aging

- ▶ **Chronologic** age and **physiologic** age not the same
- ▶ Due to complex interactions of genetics and environment
- ▶ Individuals “age” at different rates and there is significant variability



Successful Aging

▶ Prevalence of disease increases with age

▶ **Proposed pathways of aging:**

- Aging with disease and disability
- Usual aging; absence of pathology but presence of decline in function
- Healthy aging; no pathology or functional loss

▶ **Pathway goals:**

- De-emphasize aging characterized by decline
- Emphasize heterogeneity among elderly
- Underscore positive pathway of aging
- Highlights possible avoidance of disease associated with aging

Essentials for Successful Ageing

Do interesting things

Social networks

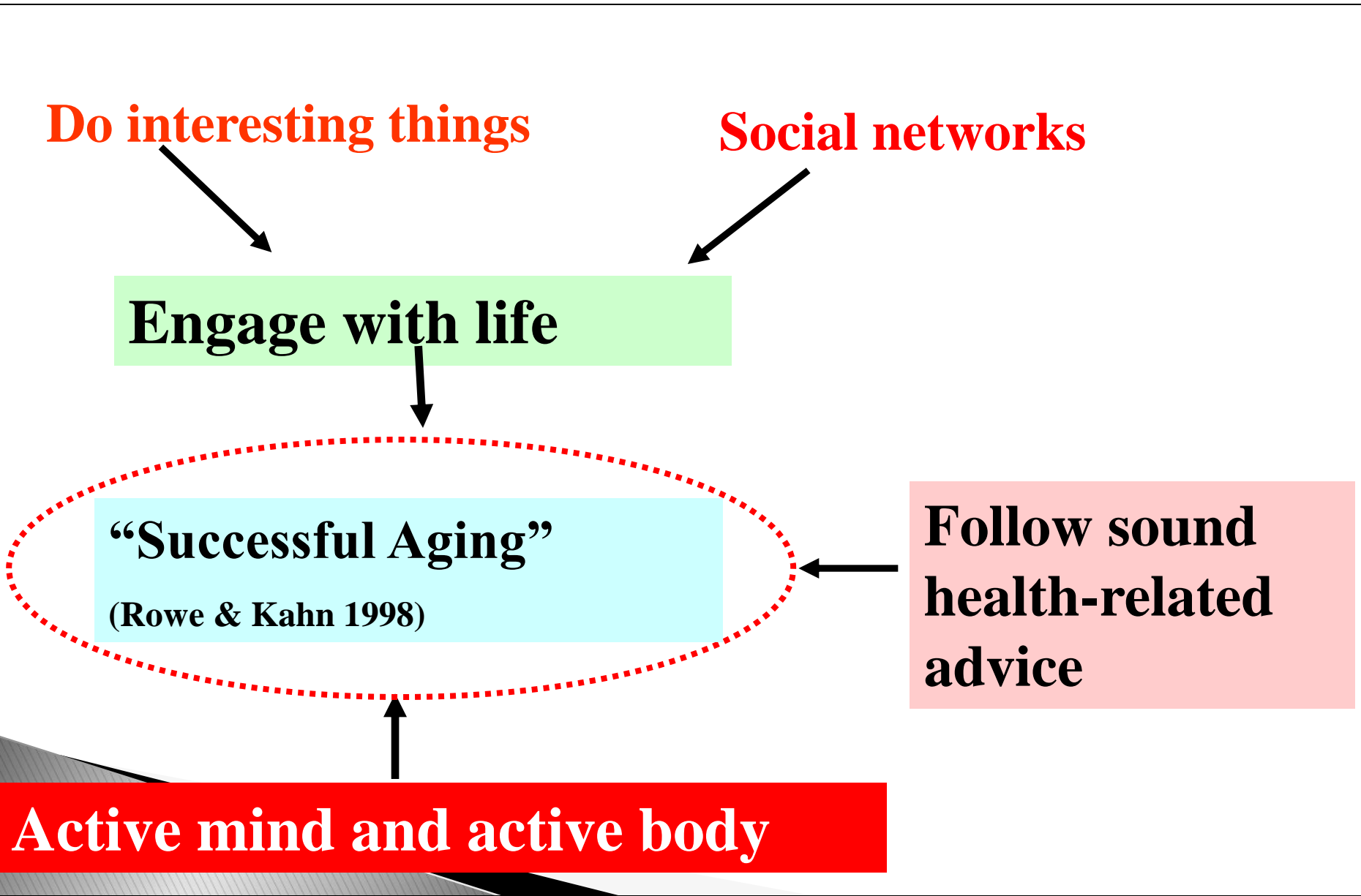
Engage with life

“Successful Aging”

(Rowe & Kahn 1998)

**Follow sound
health-related
advice**

Active mind and active body



Active mind and active body

The Foresight Project

Learning must continue throughout life.

This can have a direct effect on mental health and well-being across all age groups, and has particular promise in older people.”

Beddington et al. The mental wealth of nations. Nature, vol 455, Oct 2008, 1070-1060.

Physiological benefits of **Exercise** for elderly well documented
cardiovascular, strength, balance, stretching

Improve blood flow to
the brain

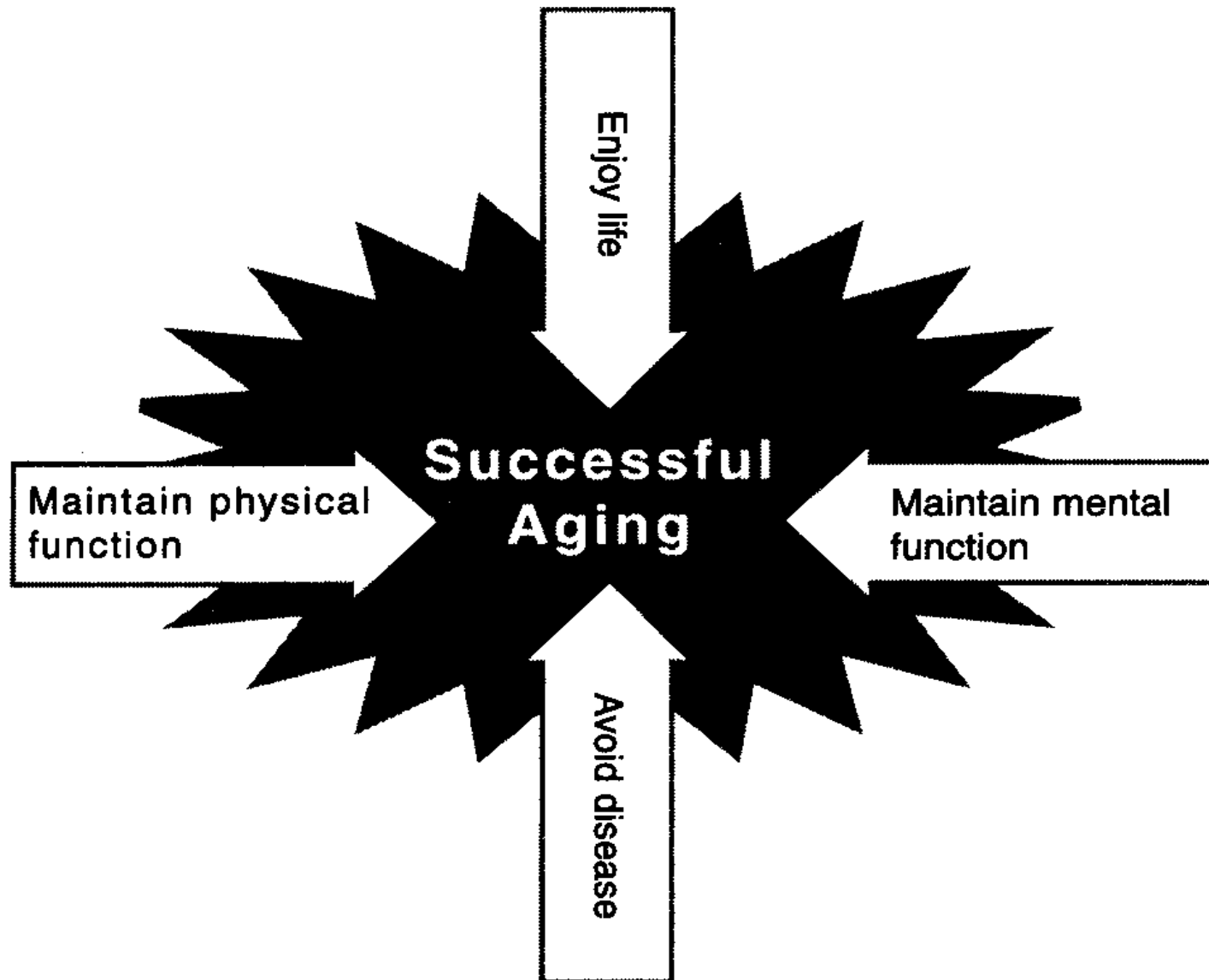
Help stimulate release of
factors critical to brain growth

Successful Aging

► Recent research:

- Elderly individuals with *weak muscles* are at greater risk for mortality than age-matched individuals
- Increase in amount and rate of loss of muscle increases risk of *premature death*
- **Physical inactivity is 3rd leading cause of death** in US and plays role in chronic illnesses of aging

Successful Aging – homeostasis less efficient, but still present



تکلیف جلسه بعد

طراحی ، اجرا و ارزشیابی برنامه های فعالیتی و ورزشی ویژه سالمندان

طراحی ، اجرا و ارزشیابی برنامه های تفریحی و سرگرمی ویژه سالمندان

طراحی ، اجرا و ارزشیابی برنامه های آموزشی ، هنری و فرهنگی ویژه سالمندان

EXAMPLE: Curriculum

Courses short-term or 1-3 years. Seven categories:

- **health care**
- **physical exercises**
- **study courses, (eg literature, history, geography, languages)**
- **skills (eg computer skills, finance, cookery, gardening)**
- **arts (eg calligraphy, painting, music, dancing)**
- **hobbies, (eg travel, photography and stamp collecting)**
- **political topics**

➤ **Social contact valued equally or more than new knowledge**

Summary: Major Educational Initiatives for the Elderly



North America:
1962: LLI;
Elderhostel

UK: 1981
self-help
U3As

China: 1980s
UAs

Japan
1960s: UAs

France: 1973 UTA;
AIUTA 1975

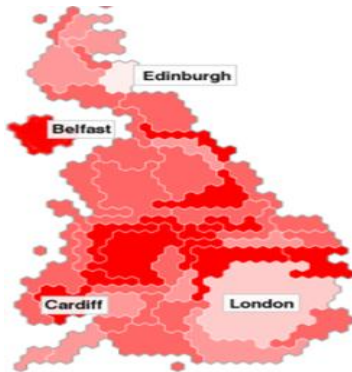
2008: India Society
of U3As;
2010 Symposium

Republic of SA
2000: 14 self-help
groups

Australia/NZ 1984:
270 self-help
groups

In later life, participation threatened by:

- **Death of a loved one**
- **Illness/Incapacity**
- **Being a carer**
- **Divorce**
- **Relocation**
- **Poor transport**



Many older people become isolated (even in large cities)

U3A Online – a virtual U3A open to all older people

► **Healthy ageing**

Aging and Disease

- ▶ Aging is associated with increase in incidence and **severity** of disease
- ▶ Factors predispose individuals to **functional losses** later in life

TABLE 3.9
Diseases of the Elderly

Limited to aging

Osteoporosis
Osteoarthritis
Prostatic adenocarcinoma
Polymyalgia rheumatica
Temporal arteritis

Associated with aging

Known Etiology

Septicemia
Pneumonia
Cirrhosis
Nephritis
Cerebrovascular disease
Myocardial infarction

Unknown Etiology

Adult-onset, Type 2 diabetes
Neoplasm
Hypertension
Alzheimer's disease
Parkinson's disease
Emphysema

How much do you know about Healthy Aging?



YOU Decide How You Will Age

- 30% genes
- 70% lifestyle

(Catherine T. MacArthur Foundation)



Lifestyle

- Healthy Diet
- Physical Exercise
- Brain Exercise

Healthy Diet

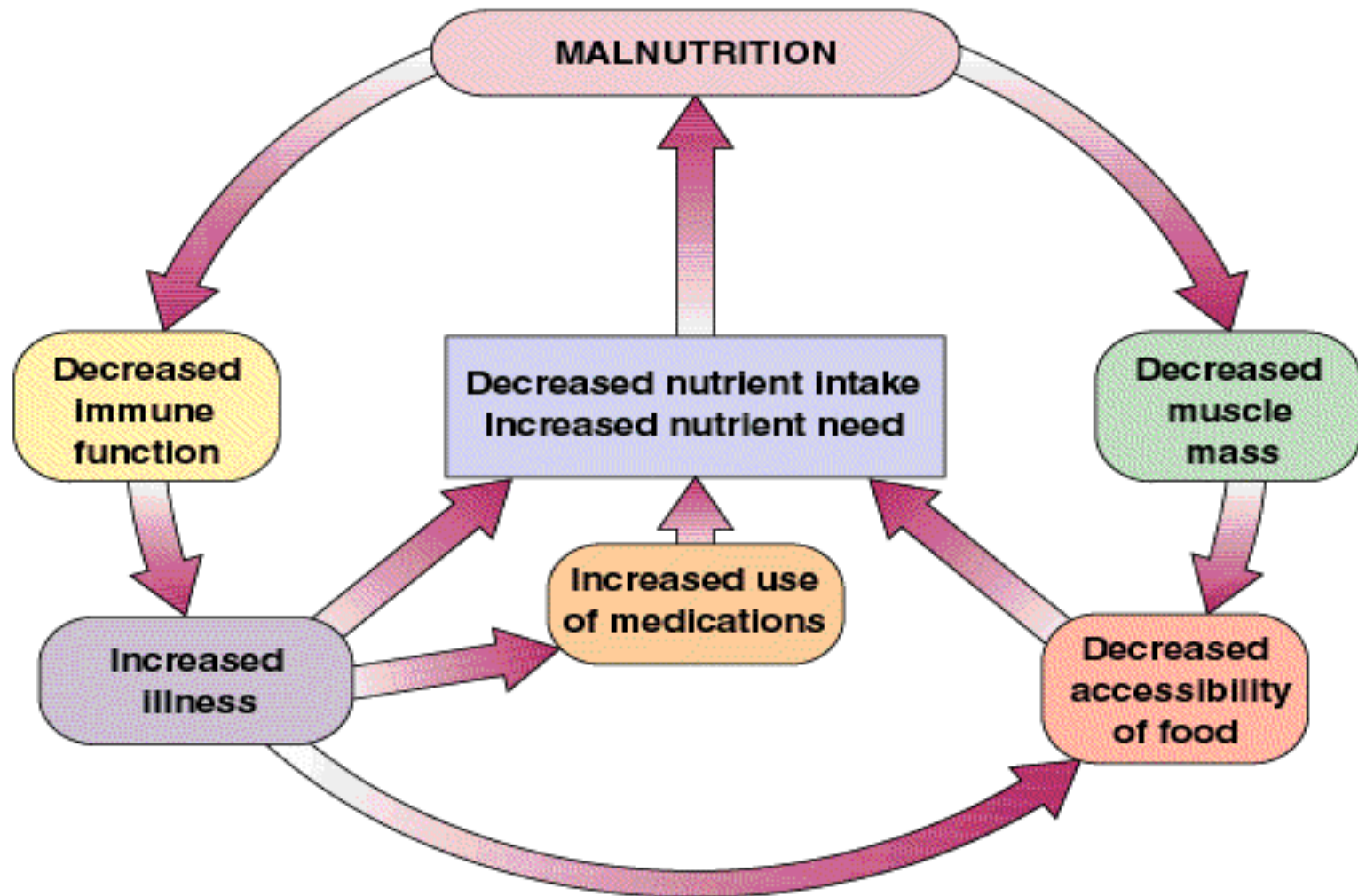


Benefits of a Healthy Diet

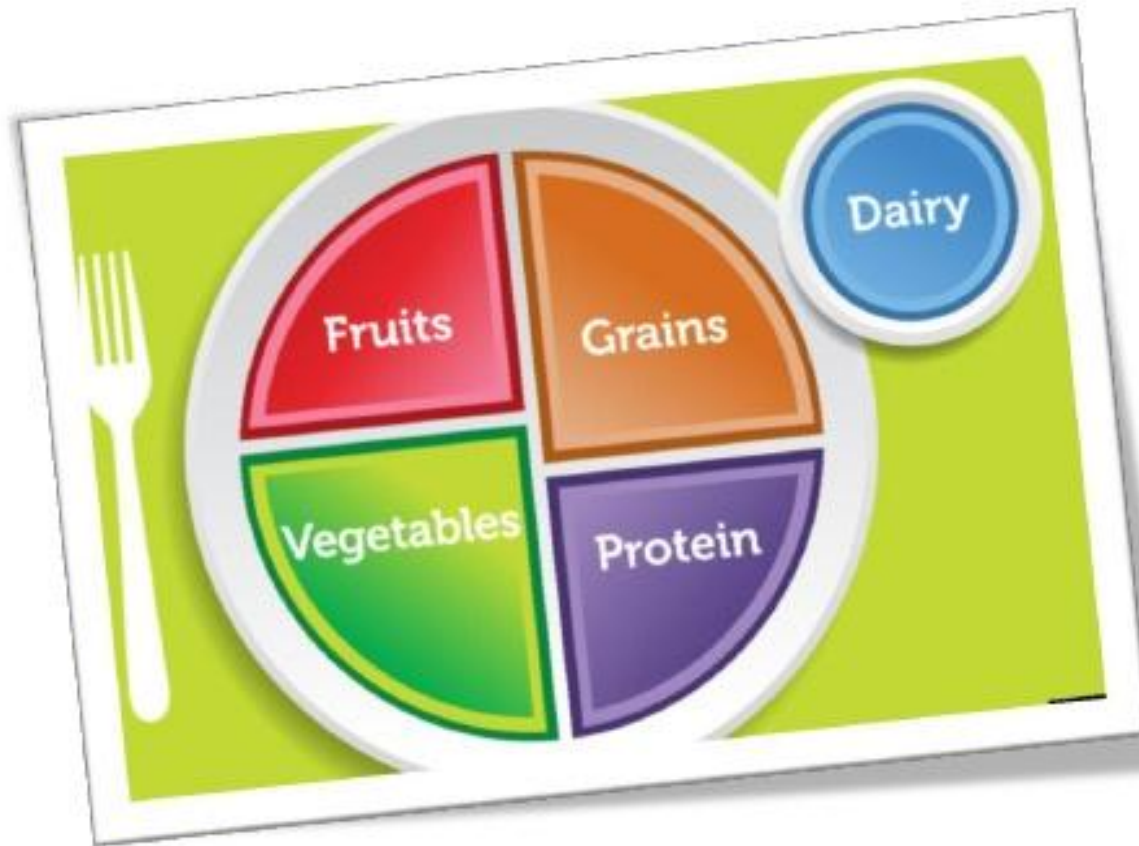
- Reduced risk of cardiovascular disease
- Reduced risk of cancer
- You feel better every day

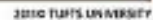
چرخه سوء تغذیه در سالمندان

Smolin/Nutrition: Science & Applications, 3/e
Figure 15.4



New USDA Food Plate





Important Vitamins/Minerals

Vitamin/Mineral	Good Sources
Vitamin D	Fatty fish, fortified milk and cereal, sunshine
Vitamin B6	Fortified cereal, whole grains, liver
Vitamin B12	Meat, fish, poultry, milk, fortified cereal
Folate	Dark-green leafy vegetables, beans, peas, oranges, fortified foods

Calcium for Strong Bones

Good Sources

Milk and milk products, tofu, dark leafy greens, soybeans, sardines, salmon, fortified foods



Limit Sodium

Recommended Maximum Ages 51+	Common Sources	Tips
1,500 mg Only \approx 2/3 tsp.	<ul style="list-style-type: none">● Chips/pretzels● Bread (eat less)● Bacon/sausage● Pizza● French fries● Frozen dinners● Canned soups	<p>“low sodium” “salt free”</p> <p>Make your own meals</p> <p>Ditch the salt shaker</p>

Suggestion: Eat Like a Greek

- A Mediterranean diet reduces your risk of Alzheimer's disease by 34-48%
- Lots of fruits & vegetables, whole grains, olive oil, beans, fish and poultry



Physical Exercise



Benefits of Exercise

- Fall Prevention
- Improved Circulation
- Disease Prevention
- Increased Strength
- Keeps Body Flexible

How Much Exercise?

30 minutes a day



4 Types of Exercise

- Endurance
- Strength
- Balance
- Flexibility

Endurance Exercises

Aerobic activities that increase your breathing and heart rate

- Brisk walking
- Yard work
- Dancing
- Swimming

Strength Exercises

Using weight to improve your muscle strength

- Lifting weights
- Using a resistance band
- Using your body weight

Balance Exercises

Ways of challenging your body to maintain its equilibrium

- Standing on one foot
- Heel-to-Toe walk
- Tai Chi

Why Balance Exercises?

- Reduce risk of falls
- Walk up and down stairs safely
- Navigate uneven sidewalks



Flexibility Exercises

Stretching so that your joints go move through a full range of motion

- Yoga
- Calf stretch
- Shoulder and arm stretch

Exercise: Just Do It!

- Reduces dementia risk 30-40%
- Prevents hippocampus from shrinking
- Triggers growth of new nerve cells

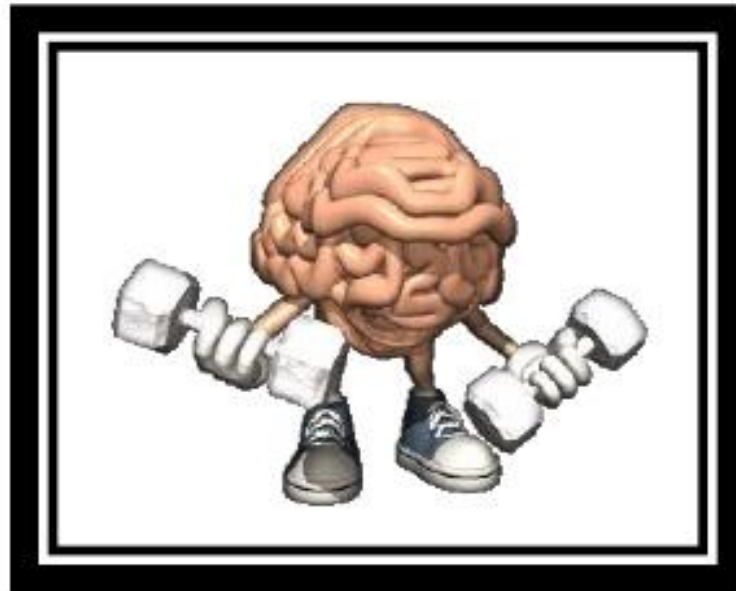


Mental Health

- Many older adults suffer from untreated depression
- Depression is an independent risk factor for Alzheimer's disease



Brain Exercise



Benefits of Brain Exercise

- Reduces risk of Alzheimer's Disease
- Increases blood flow to the brain
- May increase your IQ

Brain Exercises

- Learn another language
- Use your non-dominant hand
- Learn to play an instrument
- Play brain fitness games
- Learn something, anything, new



5 Ways to Stay Mentally Sharp

1. Seek out New Skills

- Learning prompts the growth of new brain cells



2. Say “Omm”

- Meditation reduces harmful stress hormones



3. Get a Social Life

- Social networks help lower the risk of dementia



4. Reduce Your Risks

- Avoiding chronic health conditions (obesity, diabetes and hypertension) lowers your risk of dementia



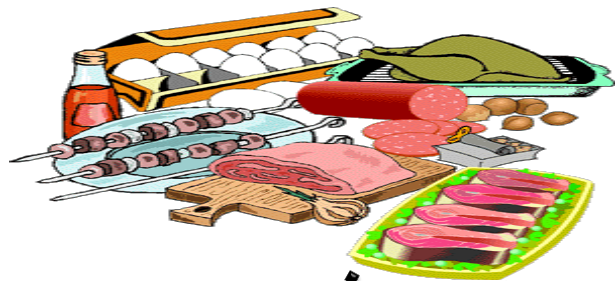
5. Sleep a Lot

- During sleep your brain continues to process memories, which helps recall



Healthy Aging Take-Aways

- Eat a variety of healthy foods
- Move your body more
- Challenge your mind



تغذیه مناسب

فعالیت کافی

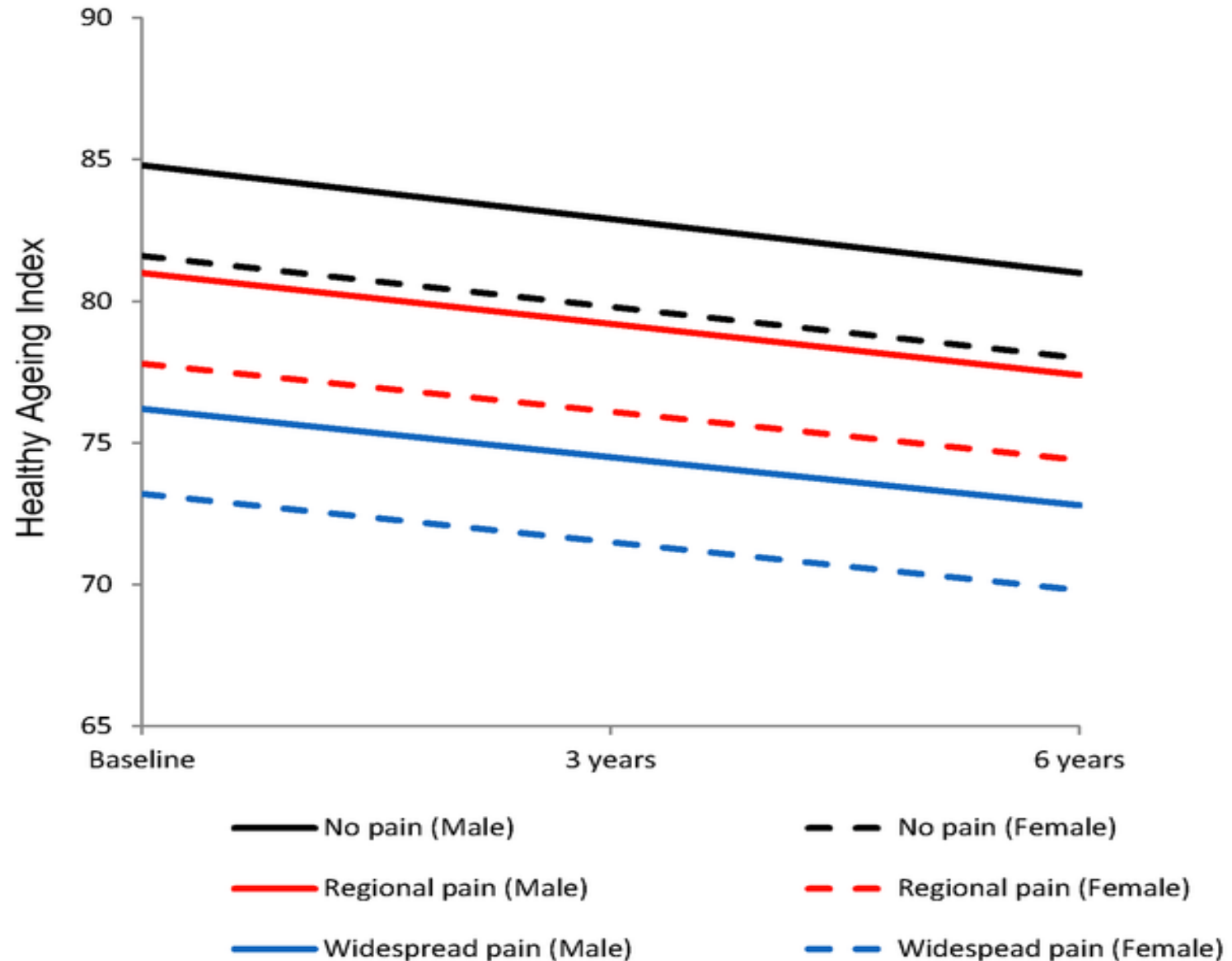
قرار گرفتن در معرض نور خورشید به میزان کافی



Persian-Star.org



Mean healthy ageing index scores over 6 years for women and men by pain status, adjusted for age, education and social networks



Thank You!
Best in health

*AGING BEATS THE
ALTERNATIVESM*

کارآموزی



گام اول:

بررسی و شناخت نیازها و تقاضاهای عنوان شده از سوی:

مددجویان سالمند در وضعیت سلامت، خانواده ها،
متخصصان حوزه های بهداشتی- اجتماعی سالمندان،

مدیران و سیاستگذاران نهادها و سازمان های متولی امور
سالمندان (وزارت بهداشت، سازمان بهزیستی، تامین اجتماعی، بیمه،
شهرداری و....)

کارآموزی



گام دوم:

استفاده از روشهای مختلف جمع آوری اطلاعات
(تهیه پرسشنامه، انجام مصاحبه های فردی و گروهی و
focus group discussion)

کارآموزی



گام سوم:

استفاده از اطلاعات جمع آوری شده در:

طراحی، تدوین و پیشنهاد بسته های خدمتی مورد نیاز سالمندان
در ابعاد بهداشتی و مراقبتی، فعالیتی و ورزشی، تغذیه ای،
آموزشی، فرهنگی و اوقات فراغت، اجتماعی

ارزشیابی

► واحد نظری:

مشارکت فعالانه در کلاس

موفقیت در آزمون های دوره ای و پایانی

انجام تکالیف مرتبط در قالب ارائه پروژه و سمینار در زمینه

محورهای اصلی این درس

ارزشیابی

واحد کارورزی:

ارائه گزارش کتبی از دو مورد اطلاعات جمع آوری شده از
بررسی سلامتی سالمند و خانواده

ارائه پرسشنامه تدوین و تکمیل شده در این زمینه

پیشنهاد بسته های خدمتی مورد نیاز سالمندان



Figure 5.0 Only a mosque stands in Meulaboh after the tsunami that hit Aceh province on 26 December 2004.



Key Concepts

- Tsunamis are generated by earthquakes or undersea landslides.
- The waves generated by such action can become a devastating force when they reach the shore.
- Most tsunamis occur in the Pacific Basin with an average of two destructive tsunamis a year



موفق باشيد

